



## **Practitioners' motives as a key issue in organizing practice research collaboration**

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### **Abstract**

Practice Research has evolved as a fruitful research paradigm in Information Systems (IS). In practice research case studies and other forms of intervention in local practices are central. Such studies require cooperation with practitioners. A researcher's motives for conducting case studies are primarily to collect and analyze data for research purposes. A practice researcher also aims to develop scientific contributions of practical value. This article elaborates on the practitioners' motives for participating in practice research using the case of a knowledge initiative (KI) concerning IS maintenance and evolution as an empirical example. KI has been arranged as a professional community in which practitioners (as KI members) and researchers have worked together to develop knowledge. By analyzing patterns of the KI members' statements and engagements, we identify some tentative motives for practitioners to participate in practice research. The results show that their main motives are to influence research, increase their competence, being a part of a social community, and solve specific problems. With this in mind we are able to arrange for practice research cooperation that meets both researchers' and practitioners' motives. The article is concluded with key issues for organizing successful practice research collaboration.

**Keywords:** Practice research, Practitioners' motives, General practice, Local practice.

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## **1 Introduction**

Practice research has evolved as a meaningful way to conduct IS research as well as research in other professional oriented disciplines. Based on the philosophy of pragmatism and a long time experience of Action Research (AR), Goldkuhl (2008) introduced a Practical Inquiry approach, which later has been developed and labelled as Practice Research (PR). PR gets its theoretical inspiration from Dewey's (1938) pattern of inquiry and according to a pragmatist's view research should be useful for practitioners as well as for researchers. In PR the organizational perspective is taken one step further since both a local practice and a general practice are defined in addi-

tion to the research practice. PR has much in common with AR, which is a common IS research method (e.g., Baskerville and Myers, 2004). The main difference is that AR research must contribute to a local practice, while PR research may contribute to a local practice but must contribute to a general practice (see further discussion below). The main purpose of PR is to create scientific knowledge of practical value (Goldkuhl, 2008).

PR requires a more or less active participation from practitioners and Foster (1972) states that the agreement between the researcher and the client (i.e., the participating organization) is a guiding foundation for a satisfying collaboration between researchers and practitioners. A researcher's motives for conduction case studies are primarily to collect and analyse data for research purposes (e.g., Baskerville, 1997). But what makes practitioners willing to participate in a research project? The most obvious motive might be to solve local problems (Melin and Axelsson, 2007). However, according to our experience the view of practitioners' motives to participate in PR research is yet to a great extent unexplored. Practitioners' intention to participate in research is sort of taken for granted, but not questioned in any detail.

For the last three years (2008-2011) we have been managing a professional knowledge initiative (KI) concerning IS maintenance and evolution. The purpose of KI is to develop useful and innovative knowledge through cooperation between researchers and practitioners. The initiative has been organized as a professional community of organizations, funding and participating in research and education within this particular area of interest. It is, however, out of the scope of this article to discuss results from KI practice research projects. Instead, we will examine KI as a case from which we can learn more about practitioners' motives for participating in PR. The purpose of the article is to analyze the KI members' statements and engagements in order to learn how to arrange for successful practice research cooperation that meets both researchers' and practitioners' motives.

If we review the field of IS maintenance and evolution, which is the focused area in KI, in literature we find that the definitions of IS (system) maintenance often stress the post-delivery characteristics and define system maintenance as different types of changes (IEEE, 1998). The categorization of changes originates from Lientz and Swanson (1980), but has been further developed by many researchers' and practitioners' experiences (Chapin et al., 2001). Surveys indicate that most of the change activities aim to improve and adapt IS to changed environments. Many researchers therefore argue that maintenance is too narrow as a concept and prefer evolution instead (Parikh, 2005). Their point is that maintenance is associated with corrective activities, rather than further development (ibid). Another dimension of the definition of maintenance is that the term has been criticized as being too narrow because of its delimited content regarding change activities. Researchers also seem to agree that system maintenance is quite unfairly treated and therefore underexplored, in theory and practice, in relation to its importance for work practices (Chapin et al., 2001). All these characteristics of the field in focus are important to understand as a background to KI.

In the IS maintenance and evolution field it is usual that needs for new knowledge are expressed by practitioners based on their experiences of practical problems (Sneed, 2005). This is why we decided to start the initiative as a type of call for knowledge development, directed to organizations working with problems concerning IS maintenance and evolution on a daily basis.

When we launched KI the following arguments to become a member were formulated in the prospect directed towards practitioners:

- Possibilities to influence research questions
- Offering ‘a door’ into the university with useful knowledge, i.e., easy access to researchers
- Membership in a community concerning IS maintenance and evolution
- Access to students’ work and, thus, potentially contact with future employees

Viewing these arguments now, we observe that we assumed practitioners to have a “thirst for scientific knowledge and being social human beings in search of new employees”. Retrospectively, we see that our argumentation was based on an unexpressed ideal picture of the practitioners which we wanted to attract. We did, however, not know if this ideal picture was based rather on researchers’ notions of practitioners and their motives than corresponding to a practitioner’s real motives. Anyhow, KI attracted 46 organizations which were far more than we had expected. Managing KI for the last three years has given us some useful experiences regarding practitioners’ motives for participating in research, which we intend to explore in this article.

After this introduction, the article is organized in the following way: In Section Two practice research is further described and discussed. KI as our empirical case is then presented in Section Three together with some methodological remarks. The empirical findings are discussed and analyzed in Section Four. The article is concluded in Section Five, where we also make some statements about the need for further research efforts.

## 2 Practice research in a theoretical context

As mentioned above, PR has a lot in common with AR. AR has over time been used and accepted as a method in IS research (e.g., Baskerville and Myers, 2004). The idea of AR is to solve organizational problems through intervention and at the same time contribute to knowledge. In AR researchers and practitioners cooperate to solve real-life problems. Initially AR was criticized for its lack of rigor (Cohen and Manion, 1980) and difficulty in making a sharp distinction between research and consultancy (Avison, 1993). Nowadays most researchers agree that consultants are more interested in changes while researchers are interested in both changes and research (Cronholm and Goldkuhl, 2004). The approach of AR means that an AR project has to satisfy two quite different target groups; a specific organization and the research community (Kock and Lau, 2001) which implies a complex balance. Dickens and Watkins (1991) illustrate this challenge by stating that AR sometimes tend to produce “research with little action or action with little research” (ibid., p. 131).

In order to increase practice relevance, Schein (1995) introduces a so called clinical model which is based on organizations’ needs. He argues that in the clinical model the researcher is involved in the organization’s business, instead of the organization being involved in the researchers’ business. The latter, Schein (ibid.) states, is common in many AR studies. Furthermore, Schein (ibid.) means that an unattended researcher can cause many problems by intervening in a wrong way. By not looking at the data gathering as a way of intervention, a potentially good problem solving can be missed (ibid.).

AR has its strength in practical relevance with a clear aim to improve a local practice as well as contribute to the research community. Obviously AR and PR have much in common, but there are also some distinctions between them. The main distinction is that AR contributes to a local practice in order to increase relevance, while PR is set to contribute to a more general practice. The latter is grounded in a pragmatic perspective which implies that PR activities contribute to knowledge aimed for practical use. The contribution to the scientific body of knowledge in PR is not restricted to the research community. Scientific knowledge should also give a general practice contribution (Goldkuhl, 2008). PR adopts Dewey's (1938) idea "to improve the world a little". This means that the world must be a bit better with PR developed knowledge than without it.

PR is also inspired by Design Research (DR). Like AR, DR is well recognized in IS literature but when AR represents a behavioural science paradigm, DR represents a problem solving paradigm (Hevner, 2004). DR focuses on artefacts that can make practices more effective. DR produces artefacts, but also meta-artefacts such as constructs, models and methods. This means that users of DR results can be found in a practice community as well as in a research community. The practice community of DR can be compared to the general practice of PR (Goldkuhl and Lind, 2010). Hevner et al. (2004) argue for a combination of problem solving and behavioural research, while Lee (2000) goes one step further and states that these are inseparable in IS research. Aboulaflia (1991), with basis in pragmatism, argues that scientific research should be evaluated in the light of its practical implications. Several scholars have conducted comparisons between AR and DR; cf. for example Lee (2007) and Järvinen (2007).

In figure 1 (below) the different practices of PR as well as their contributions are illustrated.

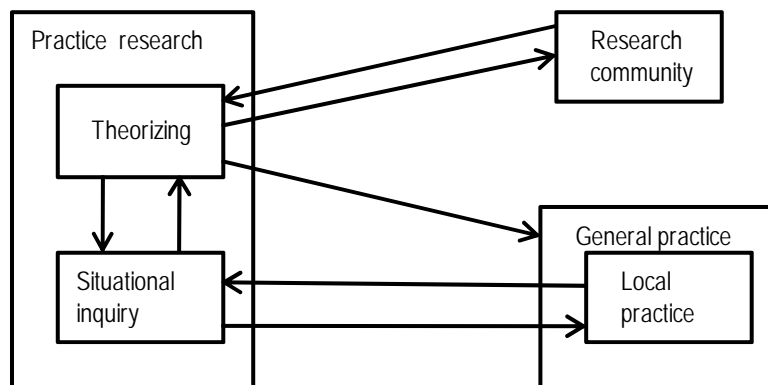


Figure 1: The anatomy of practice research (Goldkuhl, 2008)

During a situational inquiry, researchers collect empirical data in a local practice and generate a local practice contribution. The result meets theories from the scientific body of knowledge, developed by the research community, during the researchers' theorizing actions. This results in a research contribution with the research community as target group, but should also result in a general practice contribution (Goldkuhl, 2008). The knowledge development within KI follows this line of thinking, aiming for both local practice contributions, general practice contributions and

research contributions. This aim to give contributions to several target groups is also present in action design research (ADR) (Sein et al. 2011), which is an approach that addresses the dilemma of DR paying too much attention to technological rigor and, thus, missing organizational relevance. Sein et al. (ibid.) argue that DR does not enough pinpoint that artefact design is dependent on interaction with the organizational context and not only on the researchers' intentions. Instead ADR implies a research process where IT artefact building, organization intervention and evaluation are three intertwined activities. In this sense ADR and PR have similarities, as ADR aims to generate contributions to researchers (by design principles), involved practitioners (by developed artefact) and end-users (by utility for users who not involved in the project). These three groups can easily be mapped to research community, local practice and general practice in PR.

The motives for practitioners to take part in research might be seen as obvious; practitioners want to solve a problem or improve a certain matter in their organization. This has been briefly discussed in many articles about AR, but without explicitly exploring the underlying motives for participation. In most examples the practitioners' motives are described in relation to researchers' intentions. Baskerville (1997) does, for example, argue that organizations might use either consultants or action researchers to fulfil the same aim; i.e., to achieve a desirable future organizational state. His main argument is instead that consultants and researchers have different agendas for taking part in such collaboration projects. Lindgren et al. (2004) highlight that action researchers have to balance between the theoretical motives of academia and the problem-solving demands of practitioners. Simonsen (2009) characterizes AR as building upon a mutual commitment from the researcher and the practitioner, which is also emphasized by Cole et al. (2005). Mumford (2001) discusses the problems of getting in, staying in and getting out of AR projects. Implicitly this touches upon practitioners' motives, but without explicitly exploring what the motives might be besides getting a problem solved. Avison et al. (2001) show examples of AR projects where initiation as well as authority either comes from the client side, the researcher side or from collaboration between both parties. Even though AR projects initiated and/or dominated by clients probably rely on certain client motives, no other motives than problem-solving are discussed. All these examples encourage us to argue that more knowledge about practitioners' motives for participating in PR is needed.

### **3 The Knowledge Initiative in IS maintenance and evolution**

As mentioned above, we view KI as a case from which we intend to learn more about practitioners' motives for participating in practice research. The empirical descriptions and analyses presented in this article are based on conducted activities and results from KI during a three year period. In order to structure experiences from practitioners we have also coded and analyzed empirical data in evaluation forms from KI activities, such as conferences, workshops and member gatherings, using a qualitative approach (Walsham, 2006). Some of our analyses are also based on presentations done by KI members. We have also collected data in dialogues with the members during these three years. This implies that we have conducted a case study of KI using multiple data collection methods and sources of data.

The 46 organizations that were attracted by the call for knowledge development and decided to join KI represent both public and private sector. Member organizations from public sector represent both local and state levels, including municipalities, county councils, government agencies and universities. Member organizations from private sector mainly represent finance and insurance companies as well as manufacturing firms.

The main purpose of KI is to develop relevant knowledge within the field of IS maintenance and evolution. Therefore the first KI activity was to arrange a workshop aiming to collect and discuss the members' suggestions of topics for knowledge development. Approximately 50 persons participated in the workshop. In five groups the members discussed common problems in their organizations. The discussions continued for two hours and were concluded by presentations of each group's main problems. The topic of handing over results from project organization to maintenance organization turned out to have been discussed in almost every group. During the remaining part of the workshop, the discussions in some groups focused the problems of the handover situation in more detail. The result from the workshop was the starting point for KI's first knowledge development. A PhD student used this problem, grounded in practice, as a starting point for her studies concerning handover from project organizations to maintenance organizations. Together with two of the member organizations of KI, she carried out case studies in order to develop further knowledge on this topic.

The described process above is quite representative for the work conducted in KI. In three years we have investigated five main topics; the first one is handover from project organizations to maintenance organizations and the latest one is presented in this article and concerns practitioners' motives for participating in practice research. The three other topics are;

- Maintenance and evolution of IT infrastructure
- Architectural maintenance and evolution
- Benefit analysis when implementing a model for maintenance and evolution

We have mainly had a prevalent research process with theoretical studies in parallel with case studies. For the benefit analysis we tested a rather unusual case study method. Instead of selecting one organization, we invited eight professionals to play roles in a fictive organization that was about to implement a new model for maintenance and evolution. The fictive organization and its situation were inspired by experiences that one KI member had from implementing a maintenance and evolution model in more than one hundred organizations. Key figures from articles were used as a complementing data source in the study. The group conducted a benefit analysis for the fictive organization during five workshops. The group found it rather difficult to achieve the given task, but difficulties were mostly related to conducting the benefit analysis as such. The participants expressed that they had learned a lot from participating in the study. One of the participants said that he had recognized that problems in the field of maintenance and evolution are more alike between organizations than he had first expected.

Above we have described workshops and case studies as two ways of interacting with the KI members. We have also conducted member gatherings hosted by different members. We have arranged an annual conference with presentations given by mem-

bers, researchers and other invited speakers. The topics at the conferences have covered reports from on-going knowledge development projects and trend analyses, concerning nearby topics influencing the field of maintenance and evolution, as well as different KI members' practical experiences in the field. Every arrangement has attracted at least 75 percent of the members, in most cases more. In total, seven member organizations have given presentations and nine member organizations have participated in case studies.

To sum up we have covered five topics of knowledge development in KI. Four of these have their origin in practical problems in some of the 46 different local practices. We have conducted case studies including a more unusual role-play in a fictive organization. We have used conferences, workshops, member gatherings, training courses, and case studies to interact with the KI members. Finally, researchers in KI have produced the following contributions to the research community;

- Four scientific articles
- A master thesis
- A licentiate thesis

In figure 2 (below) we illustrate KI as a community in the light of PR's practices.

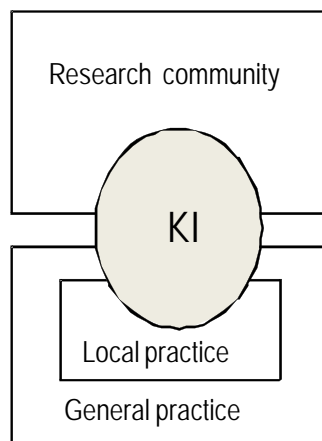


Figure 2: KI as a community involving research community, local practice and general practice

PR activities are conducted either in local practice, general practice or research community. In KI we have organized PR collaboration between practitioners and researchers. KI is a community that spans over local practice, general practice or research community as activities conducted in KI have been targeted to these three arenas. The KI community is a forum where practitioners and researchers meet in order to jointly develop knowledge and contribute to local practice, general practice and research community. Of course there are activities in KI member organizations' local practices that are not related to KI, and likewise there is a general practice (of IS maintenance and evolution) outside the KI community. In this article we primarily focus general practice in terms of the general practice part that belongs to the KI community. This does not, however, mean that KI activities and outputs cannot be of interest for general practice outside the KI community. As figure 2, above, indicates

we can, thus, regard both local and general practice to be two-layered in that sense. In table 1 (below) we have identified KI contributions to local and general practice, and (above) we have listed KI contributions to the research community.

#### 4 Practitioners' motives for participating in KI

The yearly conference, member gatherings, workshops, training activities, and case studies are all examples of interaction forms in KI. In table 1, below, we present the basis for analysis of the KI members' engagement in these different interaction forms. Common for all forms of interaction is that they resulted in high attendance as well as increased knowledge among participants.

Table 1: Aims, outputs and target groups for different interaction forms in KI

Forms of interaction	Aim	Output	Target group
Yearly conference	Report research results and successful experiences from practice	Four written reports with practice focus	General practice
		"Lessons learned" presentations by members	General practice
Member gatherings	Report practice experiences of IS maintenance and evolution work in one member organization	Member presentations	General practice
Workshops	Formulate and prioritize research topics	Documented topics of common interest	General practice
		Research agenda	Research community
Training activities	Knowledge development for individuals	Educated practitioners	Local practice
Case studies	Solve local problems	Three case study reports with suggested solutions	Local practice
		Two case study presentations with suggested solutions	Local practice

In the yearly KI conference both researchers and practitioners have reported results from IS maintenance and evolution activities. The results have been of both scientific and practice-oriented character, but all contributions have been presented in a way apprehensible for practitioner. Results have been reported in written form and as presentations of lessons learned. The target group for the KI conference has been the general practice (belonging to the KI community; see figure 2). At the KI conferences participants have expressed their satisfaction of being a member of a knowledge development community. Seven member organizations have presented their experiences from the field at KI activities. Almost every presentation has contained a



quite extensive presentation of their organization. Our conclusion is therefore that the presenters also appreciated to expose their own organization in the community.

During the member gatherings focus has been on one member's organization and its IS maintenance and evolution activities. A KI member has been host for the gathering and, thus, responsible for the agenda. Presentations of practice experiences have been directed towards the general practice (belonging to the KI community).

During the three years of KI we have arranged several workshops (the first one was described earlier in the article). The aim has been to plan KI activities that are of both research and practice relevance. During the workshops members and researchers together have formulated and prioritized research topics. The result has been reported both as topics of common interest in need of further knowledge development presented to general practice (belonging to the KI community) and as research agendas for further studies directed to the research community. This has been an important activity in order to ensure practice relevance of research conducted within KI. By giving the KI members opportunities to formulate and prioritize the research issues, we have, thus, fulfilled Schein's (2005) idea of increased practical relevance in research. One sign of this is that reports and conference articles targeted to general practice are highly appreciated both by practitioners belonging to KI and practitioners outside KI.

Training activities; i.e., courses in IT governance, have been arranged for KI members. The aim of the training activities is to increase individuals' knowledge about IT governance. Obviously, the target group for training activities is the practitioners in different local practices who get educated. This is an example of knowledge contribution to the local practice characterized as competence development. High participation in arranged training activities is interpreted as a sign that the members have identified a need for increased competence in the field.

Within KI we have conducted case studies involving one or several member organizations. The case studies have focused three different topics, as mentioned earlier in the article; 1) Maintenance and evolution of IT infrastructure, 2) Architectural maintenance and evolution, and 3) Benefit analysis when implementing a model for maintenance and evolution. These case studies have had a problem solving orientation aiming to solve local problems in the involved member organizations. Case study reports and presentations with suggested solutions to the studied problems have been given to local practice. In the conducted case studies, we have observed a deep commitment from the studied organizations. We believe that the main reason for this is that we have focused on real life problems and taken the organization one step further in solving their problem or at least getting them to look at the problem in a new way. Our conclusion is therefore that case studies in local practices attracted the highest engagement from the participants.

Based on the high attendance in every activity arranged in the KI community it is our impression that KI is important to the members. The members have frequently expressed their satisfaction that KI fulfils its purpose; i.e., to develop knowledge about IS maintenance and evolution. In every form of interaction the members have stressed the possibility to interact with other organizations as important. We have also observed that smaller networks within KI have appeared during this period. Organizations, which have identified that they have a complex problem in common, have found each other in the KI community and then started to interact. These interactions

are not permanent; they have been temporary aiming at exchanging experiences in order to solve a specific problem.

Our analysis shows that KI gives quite even contributions to local practice, general practice, and research community. However, the members' expressed opinion is that KI is primary a social community for developing and exchanging knowledge and experiences in a mutually rewarding way.

## 5 Conclusions, limitations and future research

When examining KI members' engagement in different interaction forms, we found several motives of which most can be related to our anticipated ideal picture of a social practitioner who has a thirst for scientific knowledge and is in search of new employees. Our conclusion is that knowledge desire has been a central motive for participation, however not necessarily solely scientific knowledge; but rather knowledge targeted to general practice. It also seems that proven exercise is equally valued by the members, because of the members' interest for each other's experiences in the field of IS maintenance and evolution.

We have also found that the possibility to solve local problems is valued by the members as well as the possibility to increase competence in this field. Already in the prospect, we invited to a social community concerning IS maintenance and evolution. We had actually predicted that this would be one of the highest valued motives for practitioners to join KI. This has been reinforced by our results which show that it is regarded as important for the members' personal image to belong to a knowledge development community.

We have not found any evidence that the employment argument in the prospect has been regarded as an important motive. However, this could be explained by the fact that most of the individual KI members are not in recruiting positions. We have not seen any explicit interest of other research topics (except for those already explored) in general expressions by the members. Maybe we should add "yet" here. Our experience is that it has taken us these three years to explore the interaction forms. This means that from the researcher's point of view we have not taken the full opportunity to expose other research topics in the KI community yet. Therefore we argue that it is too early to reject these arguments.

To sum up practitioners' motives for participating in practice research, we use the concepts of local and general practice according to Goldkuhl (2008);

- Local practice
  - Solve local problems
  - Increase IS maintenance and evolution competence for individuals
- General practice
  - Influence research questions
  - Increase common IS maintenance and evolution competence in organizations
  - Strengthen the personal image in relation to other organizations
  - Expose the own organization to other organizations

The high occurrence of motives related to general practice shows that the general practice regarding the field of IS maintenance and evolution is important when con-

ducting PR. We have observed that members from quite different organizations can share experiences of IS maintenance and evolution. That is also what characterizes a general practice (Goldkuhl, 2008). It appears as it is possible to use social communities, such as KI, for bridging the gap between researchers and practitioners identified by Sneed (2005).

In this article we have investigated practitioners' motives for participating in PR efforts. Our motivation for conducting this study was that if we know more about these motives we are able to organize successful collaborative research between researchers and practitioners. The only explicitly stated motive that we were able to identify from previous studies was the practitioners' aim to solve a specific problem or improve a certain matter in the own organization. As our study has revealed several parallel motives besides local problem solving, we now have better possibilities to state key issues for organizing successful practice research collaboration:

- A (temporary) social community is an appropriate collaboration forum for practitioners and researchers
- The community activities must be organized in an suitable way; different interaction forms correspond to different aims and intended outputs
- The practitioners should be actively involved in planning and conducting knowledge development activities
- A community leader committed to the field is necessary to keep the collaboration alive over time
- Researchers interested in collaboration between academia and practice is necessary to get the community active
- Knowledge contributions must be presented in a way that is attractive and apprehensible for practitioners

It takes time and effort to organize this kind of collaboration, but it is a rewarding approach to investigate everyday problems in organizations.

We note that KI has been a successful way to organize collaboration between researchers and practitioners in the field of IS maintenance and evolution. By analyzing the practitioners' engagement we emphasize the need to package and adjust scientific knowledge in certain ways to attract practitioners. The evolving interaction forms have given us the opportunity to present scientific knowledge aimed for practical use, target group adjusted to practitioners. This is in alignment with the purpose of PR (Goldkuhl, 2008; Goldkuhl and Lind, 2010). Our experience and understanding of practitioners' desire to be part of the knowledge community and to influence research questions have also given us the opportunity to increase relevance in our research (cf. Baskerville and Myers, 2004).

None of these findings regarding practitioners' motives for participating in PR is of course totally unexpected or new to us. However, by acknowledging practitioners' motives in a cohesive way we are able to arrange for successful PR cooperation that meets both researchers' and practitioners' motives. In addition to ordinary PR projects, conducted as a joint effort by researchers and practitioners in one organization, professional communities like KI can offer another arena for conducting PR, which well corresponds to practitioners' motives for participating in PR.

We think it is reasonable to assume that the identified motives can be used both in the field of IS maintenance and evolution and in other fields when organizing fu-

ture professional communities. By making practitioners' motives for participating in PR explicit, we hope that future PR efforts will benefit. Conducting PR implies cooperation between researchers and practitioners. Understanding the motives for both parties to take part in such cooperation makes it possible to design PR in a way that meets the expectations of all participants. The contribution of this article is further understanding of the practitioners' motives, which we argue have been taken for granted in many research projects.

The conclusions in this article are based on analysis of empirical data from practitioners in the field of IS maintenance and evolution. Even though we think that the motives can be similar in other fields, an appropriate next step would be to explore the motives for practitioners to take part in PR in other fields. No doubt KI has been successful and improved the collaboration between researchers and practitioners, but we must also be aware that IS maintenance and evolution is an area quite unfairly treated in both theory and practice compared to other IT related areas (Chapin, 2001; Parikh, 2005). This can be one explanation to the high engagement by practitioners. Therefore, studying another field, with higher status, would maybe reveal other, supplementing motives for participation.

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